A specimen of the Greenfield Euphorbia in fruit is in my herbarium. There are now on record four American stations where *Euphorbia Cyparissias* has been found in fruit, Shelburne, New Hampshire, Greenfield, Massachusetts, Staten Island, New York, and Galt, Ontario. I shall continue to seek information in regard to the fruiting status of this species, and I trust that any new cases will be called to my attention.

Cambridge, Massachusetts.

THE SAND PLUM IN INDIANA.

E. J. Hill.

During the summer of 1906 I discovered a *Prunus* which differed from any heretofore seen in the region about Chicago. It was growing in the sand just without the right of way of the Lake Shore and Michigan Southern Railroad, near Dune Park, Lake County, Indiana. The nearness to the railroad and the striking difference between its leaves and those of *Prunus Americana*, the common wild plum of this region, led me to conclude that it was an introduction. It was mainly represented by bushy branched shrubs, 1–3 m. high, which were quite thorny, or provided with short, spinescent branches. They formed two narrow thickets, each extending for several rods beside the fence which separated them from the railroad. They were examined the next spring for flowers, but too late for petals. No fruit set that year. In the spring of 1908 good flowers were obtained May 2nd, about two weeks earlier than the time of visiting them the year before. No fruit was borne that year. Enough had been disclosed by the flowers to make it evident that, if perfected, the fruit would be a plum. But, from the character of the leaves and flowers, and the habit of the shrub, I had concluded it was the sand plum, *P. Watsoni* Sarg., or if not specifically distinct, *P. angustifolia* Marsh., var. *Watsoni* (Sarg.) Waugh, introduced here from the western plains. Since it freely spreads by long roots running just below the surface of the ground, sending up new shoots or suckers at the distance of 4 or 5 m from the

parent stem in some cases, it seemed well equipped for propagation even if lacking fruit. But it has been examined every season for fruit, though not for flowers, without avail till the present. This year (1912) it was abundant, the greater part of the mature shrubs being in bearing. It varied somewhat in size and shape, but no more than is seen in the fruit of *P. Americana*. The season lasts three or four weeks, beginning about the middle of July. The plums are bright red, without bloom, globose, 7–10 mm. in diameter, or larger and slightly lengthened on some shrubs. The skin is firm but not thick, flesh yellow and pleasantly acid, stone ovoid to oval, rather large and thick, the surface rugose. It was apparently an improvement on the sand-plum of the west, approaching the Chickasaw plum. In a climate with a greater and more evenly distributed rainfall, changes for the better might be expected. There were a few cases in which the shrubs were more tree-like in form, reaching a height of four meters, but the mass of them was low, the trunks 3–10 dm. high. The points in which it approaches *P. angustifolia* may be an argument in favor of its varietal character.

To account for the plums I had gone back to the time when I had noticed manure spread on both sides of the railway track through the dune region. From its appearance it evidently came from the stock-yards of Chicago or from stock cars. It was apparently done to encourage the growth of some covering for the sand. This was about 1890. It is not uncommon to find western plants springing up in the dump from stock cars, some of them persisting and becoming members of our flora. It seemed altogether probable that the plum had been introduced then, spread beyond the fence, and though destroyed within the enclosure by continual cutting, had held on outside. My conjecture was unexpectedly corroborated the day the fruit was found. Seeing some trackmen at work close by I asked their overseer if he had lived in the vicinity for a number of years. Learning that he had I questioned him about the plums. He said that manure from the stockyards had been spread beside the track about twenty years before, and the plums came up just after. As I had given him no hint of my conjecture, this proved strong evidence in its favor. His knowledge of the character of the plum and of previous fruiting was shown by a further statement that he had transferred some to his yard but did not think them worth cultivating, they were so low and bushy and the stone was large in proportion to the flesh.

That this *Prunus* came from the west rather than from the south is most probable both from the general movement of stock for the Chicago market and from the hardiness of the shrub. If we refer it to the Chickasaw plum, we find the range of this considerably south of this latitude. It comes into the extreme southern part of Illinois, being credited to Union county by Vasey, and into the corresponding part of Indiana, being credited to Gibson county by Schneck. Both of these stations are near the Ohio river. In his catalogue of the flowering plants and ferns of Indiana, Stanley Coulter says under *P. angustifolia:* "Of rare occurrence in the southwestern counties of the state. It is reported as growing on dry, rather rocky slopes. I have seen no specimens and the species is admitted on the authority of collectors."[1] Schneck for Gibson county is the only person cited. It is not given among the trees of Indiana by Chas. C. Deam in the Eleventh annual Report of the State Board of Forestry of Indiana (1911.)

It does not seem to be hardy as far north as the south end of Lake Michigan or probably any farther north than the localities mentioned for these two states. Sargent says of it, "In eastern New England it is barely hardy, seldom flowering and never producing fruit."[2] But the *Prunus* at Dune Park appears as hardy as any indigenous member of our flora. All the circumstances tend to the conviction that it was introduced from the western plains, and that its apparently improved condition is due to a better environment than in its native region.

CHICAGO, ILLINOIS.

[1] Report of the State Geologist, 1901, p. 794.
[2] The Silva of North America **4**: 26, 1892.